

**OIB****Antarctic Flight 15, LVIS High Altitude Antarctica Peninsula**

Aircraft	DC-8
Flight Number	DC8-100123
Flt Req #	108002
Flight Hours	11.6
Date	11/5/09
Purpose of Flight	LVIS Peninsula
Aircraft Status	Airworthy
Sensor Status	All installed sensors operational.
Significant Issues	None
Accomplishments	High Altitude grid survey over the peninsula. The weather forecast proved to be correct and data was collected over approx. 95% of the lines. MCoRDS also collected 7.5 hours of data. DMS operated normally. Some issues were noted with POSAV 510 system, the Applanix 610 worked normally.
Planned events	Planning a no-fly day due to target weather

**Flight Summary**

LVIS High Altitude Peninsula, FLT 15

November 5, 2009

**Bill Krabill (Mission Principal Investigator):**

November 5, 2009

DC8 mission # 15 to Antarctica

Flight Plan id: LVIS high altitude Peninsula

take-off 1314z

This flight surveyed a series of parallel over the Northern Antarctic Peninsula with the LVIS sensor. The mission was flown in very clear conditions.

Plan for Nov 6: adverse weather for all remaining sites.

Individual instrument reports:

**ATM:** does not operate at high altitude. The DC8 was locked on to the ATM nav system for the entire mission. Typical cross track deviations were in the range of a few feet.

**MCoRDS:** The University of Kansas MCoRDS system collected data for nearly 8 hours during this high altitude survey. Over 1.6 TB of data were recorded. The system worked very well today. Extensive post-processing will be required to fully exploit the potential in this data set as the dense survey pattern may lend itself to more advanced data processing techniques.

**Snow and Ku-Band radar:** did not operate

**LVIS:** operated all day, and the real time displays indicated good data.

**DMS:** worked well

**Gravity:** worked normally.

**POS/AV:** operated normally.

**DC8 on board data:** worked well.

**Jim Yungel (ATM Team):**

From yesterday's high altitude LVIS mission to map a wide swath of the northern Antarctic Peninsula with a set of "cut the grass" flight lines. LVIS reports that there were a couple of patches of ground fog but thinks we got upwards of 95-97% percent of the data in the 250km x 28km mapping box (so somewhere around 9million laser shots actually in the box). So a really great weather call!

The crew did great on the lines (turns were tight, lines were hit) and they were very accommodating on requests for increases in flight altitude (to maximize the swath width).

Today is a no-fly day with the crew working on servicing the aircraft and science team resting.

